



Kalcevic and sons mounted a forklift mast on back of an old Wagner articulated 4-WD tractor and turned the cab 180 degrees so the operator faces the rear.

Small 4-WD's Make Great Loaders For Big Bales

Joe Kalcevic and his sons Johnny, Jim, and Joe, Bennett, Colorado, produce high-quality hay on 1,000 irrigated acres just east of Denver. That's a lot of hay, but it pales by comparison to their 80,000-plus acres of small grains and other crops.

All the hay that is not used on the farm is sold directly out of the field. Because there are always plenty of other tasks demanding their attention, they needed a quick way to handle big bales.

For years they used 2-WD industrial fork tractors with Freeman squeeze masts. "The fork masts were great, but we had problems with the two-wheel drive tractors," Johnny says.

The tractors needed more traction to get around under load on the damp soils in the irrigated fields. They also didn't have the hydraulic capacity to handle more than a bale or two at a time.

The Kalcevics looked around for a heavier loader tractor, but couldn't find what they wanted. They already had an early 1960's vintage Wagner articulated 4-WD tractor that was no longer big enough to get much use on their growing farm. And they had a couple of Versatile 145 articulated 4-WD's, too.

"We'd bought the Wagner used from a dealer in 1968 and had used it a lot for light tillage and drilling grain, but by the early 1970's, it was just too small for most tillage tools on our farm," Johnny says.

But the old Wagner was a far cry from a loader tractor. Its 453 Turbo 4-cylinder Detroit diesel, rated at about 140 hp, gave it plenty of power for what they wanted it to do. But there was no place to mount a forklift mast and the original hydraulic system was under-powered to handle it. Also, the standard transmission was going to be difficult to work with in hay loading, and the old cab was noisy and needed better climate control for those hot days in the hayfield.

They decided to mount the forklift mast on back and turn the cab 180 degrees so the operator faced the rear. "We rebuilt the cab so it was better insulated and sound-proofed, and then attached it to a separate base and mounted that on rubber," he says.

While they were working on the cab, they pulled out the clutch and transmission and replaced them with a hydrostatic drive system. "We had to mount an adapter plate on the flywheel housing of the engine. We coupled a hydrostat motor on the upper drive line from the engine to the driveline into the drop box that powers all 4 wheels," he says.

To increase the hydraulic capacity of the



Tractor's Freeman squeeze mast is shown here with two 4 by 4 by 8-ft. bales, but it can actually handle four bales at once.

tractor, they piggybacked a second hydraulic pump on the tractor. "With the second pump, we have a 20 gal. per minute flow to the fork and 24 gpm on the steering, so we can turn and use the fork at the same time," he says.

They added an oil cooling system and replaced the standard engine fan with one on which the blades had more pitch to increase airflow. They also added a new condenser to air condition the cab.

Finally, because they felt they needed more electrical capacity to reliably handle the electronic over hydraulic controls on the Freeman mast and the hydrostatic transmission, they replaced the old alternator with a 120-amp Delco alternator.

Johnny says they can now handle four 4 by 4 by 8-ft. bales by putting two together and then stacking two more on top of them before picking up the four to haul off the field to a waiting semi-trailer.

The Wagner project went so well they decided to convert one of the Versatile 145's in the same way. With its 180 hp Cummins diesel V-8, the 145 had more power than the Wagner, but needed the same changes in the cab, hydraulics, alternator and drive system. It also lacked mountings for the forklift.

The biggest difference between the Wagner and Versatile conversions, he says, was that the hydraulic reservoir on the Versatile was inadequate. However, it had two 40-gal. fuel tanks. They solved the hydraulic fluid volume problem by converting one fuel tank into a hydraulic reservoir.

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To keep soil from eroding away around a culvert, Blomgren used concrete slats that had been removed while remodeling a hog building.

Retaining Wall Made From Used Hog Slats

Jon and Tricia Blomgren, Alvor, Iowa, needed a retaining wall to keep soil from eroding away around a culvert that runs under their driveway.

After he priced building materials and considered the life span of treated wood, Blomgren decided to rethink the idea. "I just couldn't get excited about doing all that work with wood and then having to do it over again in a few years," he says.

Then he remembered some old concrete slats he'd removed while remodeling a hog building. The slats were 10 ft. long and tapered from 5 1/2 in. wide on the top to 4 in. wide at the bottom.

Figuring the slats would stay in place better and last longer than wood, he decided to use them.

He drove creosote-treated railroad ties into the ground as posts to hold the wall in place and then laid the slats into a straight vertical wall. The base length of one side of the wall is 13 ft., so, using a chop saw, he cut 3-ft. lengths from some slats to add to the 10-ft. full length slats. The wall tapers up toward the culvert, so shorter lengths were needed



He drove creosote-treated railroad ties into the ground as posts to hold the slats in place.

as he built it higher, so he ended up cutting several slats. "The wall had to be about 6 ft. high, tapering down to just 2 ft. on one side of the culvert. On the other side, we made it 4 ft. tall and tapered down to even with the ground," he says.

Blomgren says the slats were easy to work with and made an attractive, inexpensive wall.

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Eldon Kuster used old center pivot pipes to make a bunk silo for ground hay.

Center Pivot Bunk Silo

What do you do with an old center pivot once it's out of commission? Eldon Kuster, Crook, Colo., came up with one of the best uses we've seen.

"After a tornado ruined our center pivot, we salvaged as many pipes as we could to make a holding bin for ground hay.

"We first anchored some 2 7/8-in. dia. well pipes securely in the ground. Then we simply cut holes through the sides of the center pivot pipes and slid them down over the well pipes. A couple extra well pipes were placed behind each wall to provide strength for when we load out the hay and have to push up against the walls. (The wood light pole in photo is not part of the structure).



Holes are drilled in center pivot tubes and they're set onto 2 7/8-in. dia. well pipes.

"The idea came from Steve Booth, who used to work for us."

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